



Physical Activity and Nutrition

GOAL

Improve health, fitness, and quality of life through daily physical activity and good nutrition.

Overview

Over the last century, the scales have tipped dramatically in terms of our physical activity and nutrition; and the resulting impact is profound. One hundred years ago, our ancestors faced a life in which their daily work – mostly farming and housework – most often included physical activity and fresh foods. Even maintaining a home – cooking, cleaning, washing laundry – required more physical exertion than today. Food was most likely to be locally produced and included a fair amount of vegetables. Health concerns pertaining to nutrition at that time were focused on undernutrition.

By contrast, for most of us today, physical activity is completely segregated from our work lives. Many of us sit the vast majority of our workday. And, in terms of nutrition, instead of eating locally grown food high in fiber, many of the foods we eat are processed, high in fat, high in sugar, and low in fiber.

What are the results of this dramatic change in our lifestyle? Instead of focusing on issues of undernutrition, we now have an epidemic of obesity that is disabling and killing us. About 60% of Americans and Maine people are now overweight or obese. One in five Americans and Maine people are obese; for both populations, this represents a 50% increase in only 20 years. Even more dramatic is the 100% increase in the percentage of American youth who are overweight over the same time period.

Poor nutrition and physical inactivity with resulting obesity results in death and disability from cardiovascular disease (heart disease and stroke), type 2 diabetes, cancer, chronic lung disease, gallbladder disease, sleep apnea, arthritis, high blood pressure, high cholesterol, and a myriad of other diseases. In fact, an estimated four people die every day in Maine from an underlying cause of poor nutrition or physical inactivity.

Although obesity has become an epidemic, we must also be cognizant of the fact that food security is a concern for many Maine citizens. In addition to people living with low income, nutritionally vulnerable groups such as pregnant women, children, and elders who all have increased nutrient needs compared to healthy adults, are particularly at risk for food insecurity and hunger.



PRIMARY

SECONDARY

TERTIARY

Strategies

- **Environmental Changes:** Environmental approaches to improving physical activity and nutrition involve changing the settings in which we live, work, play, and attend school in order to assure that we have easier access to healthy choices. Our environment has a strong impact on our behaviors that in turn impinge on health status. Our daily decisions about what we eat and what type of physical exercise we participate in are based on what is available to us and what barriers exist. For example, an individual who lives in a neighborhood located on a busy road with no sidewalks and where the most accessible nearby food is high fat fast food, already faces barriers that make it difficult to consume a healthy diet and get regular physical activity. We can make a difference by working together to change those aspects of our immediate community environments that create barriers to healthy lifestyles.
- **Education:** Examples include teaching comprehensive health education in our schools K–12; educating the public on ways to eat better and be physically active; implementing community education programs appropriate for whole families such as walking days; and media campaigns that counter unhealthy messages put forth by fast food industries.
- **Strategies to Reduce Risk:** Examples of initiatives include providing community resources and programs for those at risk for physical inactivity, poor nutrition, and obesity.
- **Strategies to Reduce Disease Burden:** Initiatives for those with obesity and overweight such as providing the community and medical resources are some examples.



Examples of Environmental Changes that can have a positive impact on nutrition and physical activity are:

- **Building sidewalks or bike lanes on new or newly paved roads;**
- **Creating multiuse trails, including those that connect services and people such as schools and neighborhoods;**
- **Opening school gyms in the evenings and weekends during the winter for recreational play;**
- **Assuring that school children are physically active for at least 50% of their physical education classes, which are offered on most school days;**
- **Offering secure places to store bikes at school and work places;**
- **Making showers and changing facilities available for employees who want to exercise during the workday;**
- **Assuring that employees have opportunities during work breaks for brisk walks and/or other forms of exercise;**
- **Advocating that food establishments – restaurants, snack bars, school/employer cafeterias, vending machines, concession stands, and events – serve heart healthy (low fat, high fiber, low sugar) food choices; and**
- **Working with grocery stores to offer menu items for heart healthy, easy-to-cook meals that are clustered and featured together.**

Health Disparities

- **Adolescents** (decreases in rates of physical activity during grades 9 through 12, with a more profound decrease among girls)
- **Older adults** (higher rates of no leisure-time physical activity)
- **People with disabilities** (higher rates of no leisure-time physical activity)
- **Women** (higher rates of no leisure-time physical activity)
- **Some racial and ethnic minorities** such as Hispanic, African Americans, and Native Americans (higher rates of obesity and of no leisure-time physical activity)
- **Low socioeconomic status** (higher rates of no leisure-time physical activity; higher risk for undernutrition)

Objectives

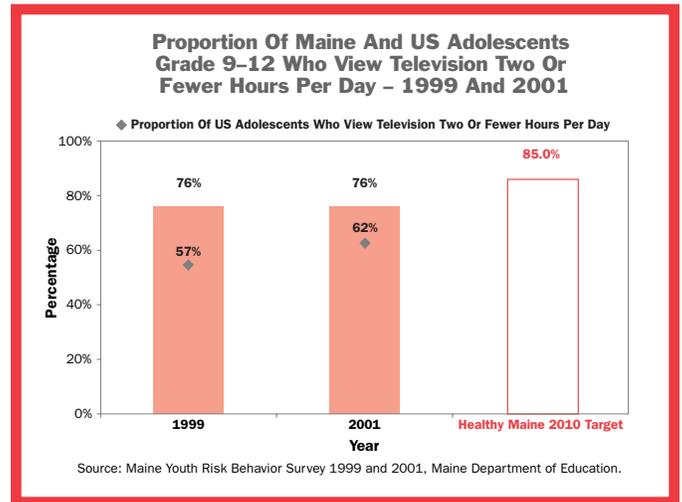
- **22-11 Increase the proportion of adolescents who view television two or fewer hours per day.**

Healthy Maine 2010 Baseline: 76%
Healthy Maine 2010 Target: 85%

The amount of time spent viewing television is correlated with a decrease in physical activity and an increase in calorie consumption, particularly fatty and processed foods. This is particularly true among children, who are most likely to be physically active when not passively watching television. American youth ages 2-18



spend an average of four hours per day watching television, videotapes, playing video games, or using a computer. Almost three of these four hours are spent watching television. Nearly one-fifth (17%) of children watch more than five hours of television per day (Kaiser Family Foundation, “Kids and Media”, November 1999). Having a television in a child’s bedroom is a risk factor for increased television watching and subsequent obesity. Given that half of American children ages 2-18 have a television in their bedroom and one-third have a video game player in their bedroom, we face major challenges in achieving this objective (Kaiser Family Foundation, 2000).



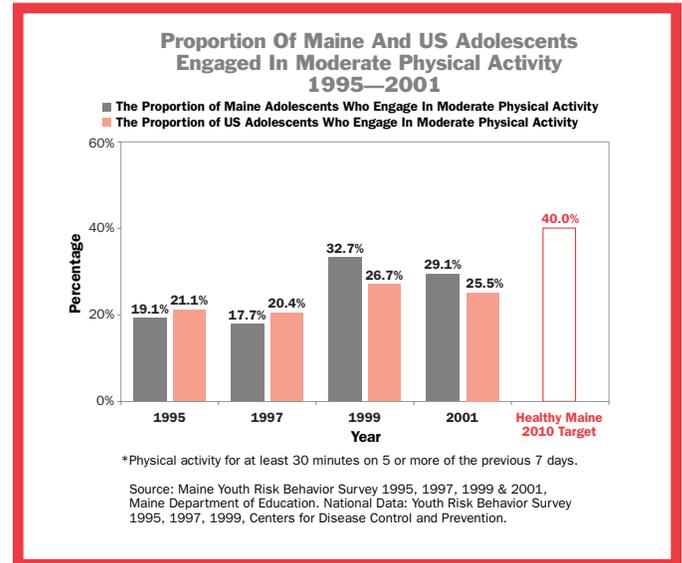
Objective numbers are corresponding *Healthy People 2010* objective numbers.



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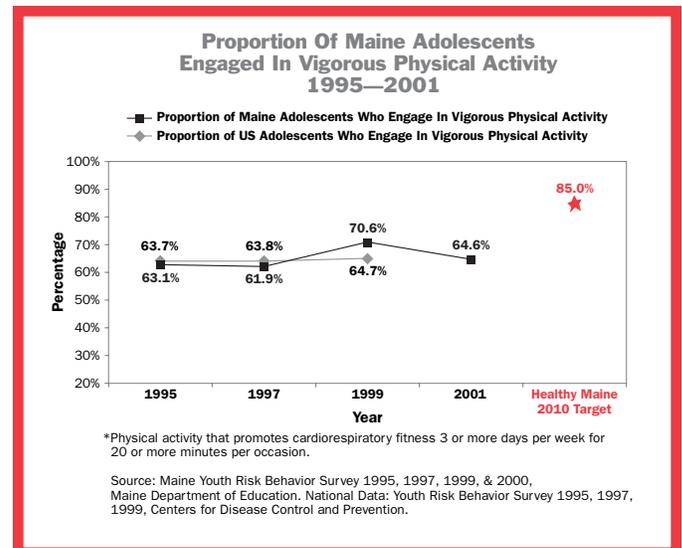
- **22-6 Increase the proportion of adolescents who engage in moderate physical activity for at least 30 minutes on 5 or more of the previous 7 days.**

Healthy Maine 2010 Baseline: 32.7%
Healthy Maine 2010 Target: 40%



- **22-7 Increase the proportion of adolescents who engage in vigorous physical activity that promotes cardiorespiratory fitness 3 or more days per week for 20 or more minutes per occasion.**

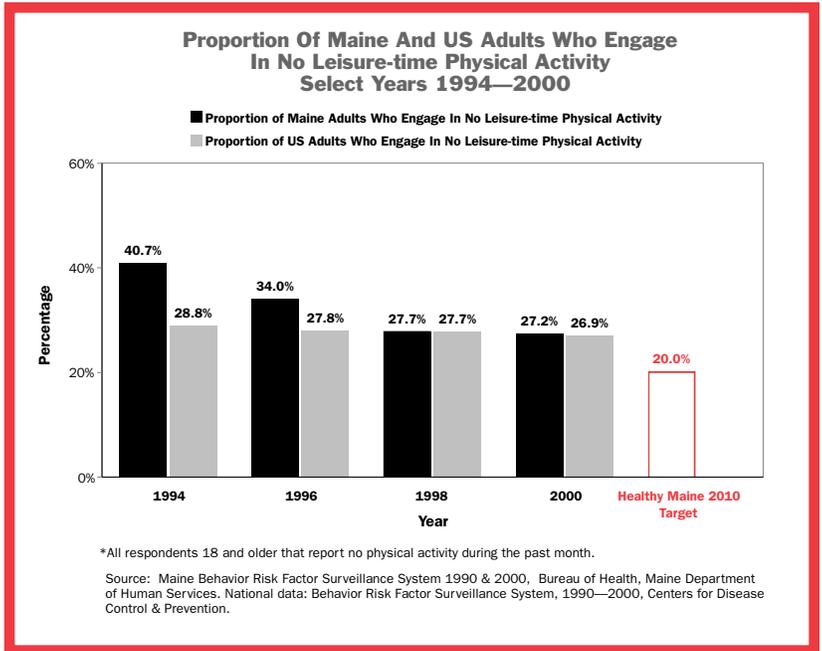
Healthy Maine 2010 Baseline: 70.6%
Healthy Maine 2010 Target: 85%



Physical activity declines throughout adolescence, yet this is one of the most critical times to learn lifetime habits of regular physical activity. Assuring that high school students are participating in regular physical education classes held on at least half of school days, spending at least 50% of these classes engaged in physical activity, and teaching them lifelong habits are effective strategies to achieve these objectives. Additionally, adolescents should be physically active as part of daily non-school activities such as play, games, sports, work, transportation, recreation, or planned exercise.

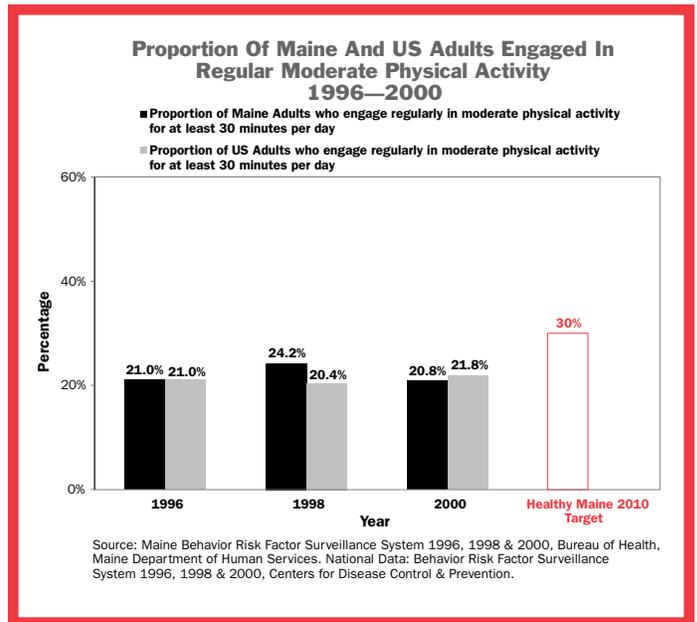
- **22-1 Reduce the proportion of adults who engage in no leisure-time physical activity.**

Healthy Maine 2010 Baseline: 27.7%
 Healthy Maine 2010 Target: 20%



- **22-2 Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day.**

Healthy Maine 2010 Baseline: 24.2%
 Healthy Maine 2010 Target: 30%



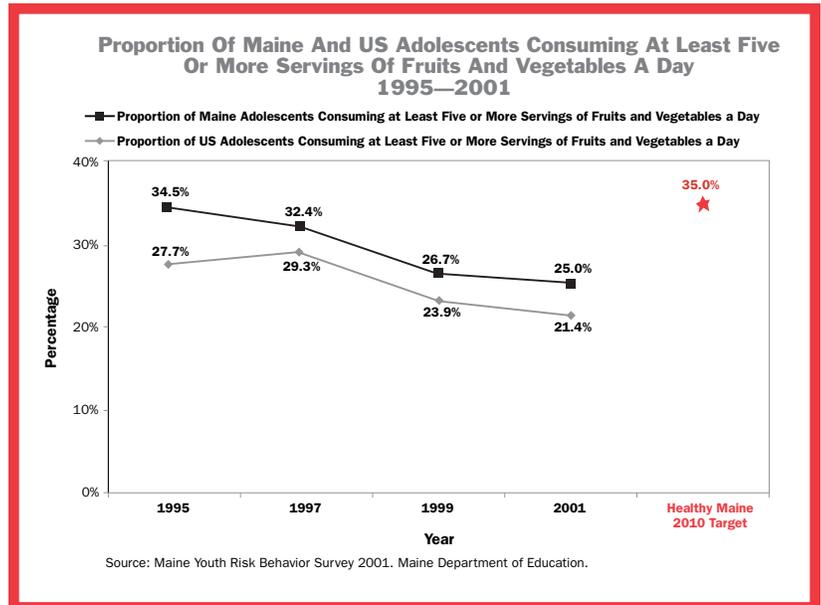
Increasing physical activity is one of the most critical health improvement interventions we can make; reducing morbidity and mortality from a wide range of diseases such as cardiovascular disease, diabetes, some chronic lung diseases, arthritis, high blood pressure, high cholesterol, and obesity. The highest risk of death and disability is found among those who do no regular physical activity, so engaging in any amount of activity is preferable to none. However, moderate to vigorous physical activity at least 30 minutes per day most days of the week is preferred. This objective can be achieved in a variety of ways, including integrating three 10-minute bursts of physical activity into one's day.



Physical Activity and Nutrition

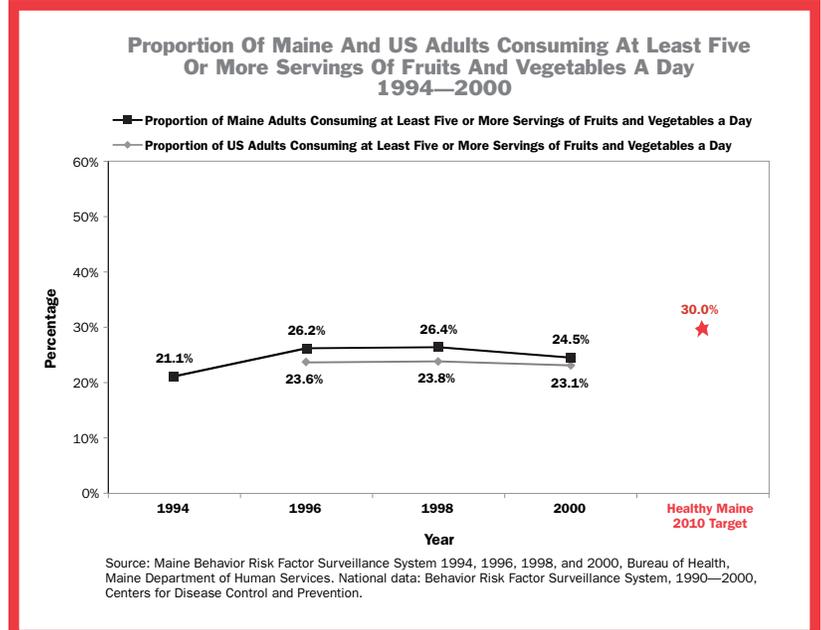
- **19-5, 19-6 Increase the proportion of adolescents consuming at least five or more servings of fruits and vegetables a day.**

Healthy Maine 2010 Baseline: 26.7%
Healthy Maine 2010 Target: 35%



- **19-5, 19-6 Increase the proportion of adults consuming at least five or more servings of fruits and vegetables a day.**

Healthy Maine 2010 Baseline: 26.4%
Healthy Maine 2010 Target: 30%



Vegetables (including legumes such as beans and peas), fruits, and grains are good sources of vitamins and minerals, fiber, and other substances that are important for good health. Intake of some high-fiber fruits and vegetables is associated with lower blood glucose, lower blood lipid levels, and lower risks for some cancers. Although dark green and deep yellow vegetables are highly recommended, french fries account for about one-third of vegetable servings consumed by American youth ages 2 to 19 years.

There is a growing body of research that indicates increased consumption of less healthy foods and beverages such as soda and fatty fast foods is replacing healthier foods such as fruits and vegetables, especially among our youth.

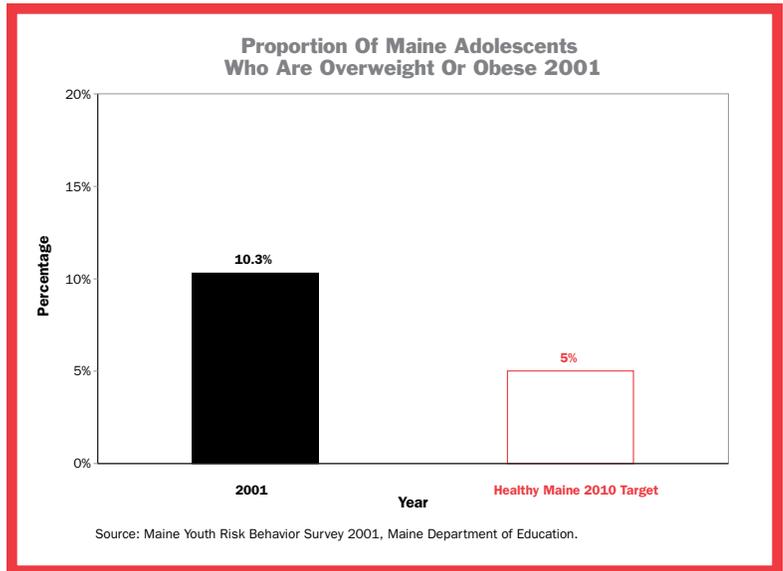
- **19-3 Reduce the proportion of adolescents who are overweight or obese.**

Healthy Maine 2010 Baseline: 10.3%
 Healthy Maine 2010 Target: 5%

Maine’s baseline data for this objective is measured by the Youth Risk Behavior Survey, which is obtained from high school students. The *Healthy People 2010* baseline is from several sources and includes children and adolescents ages 6 to 19 years, 1988–1994. Its baseline is 11%.

The percentage of overweight young people has doubled (increased by 100%) since 1980

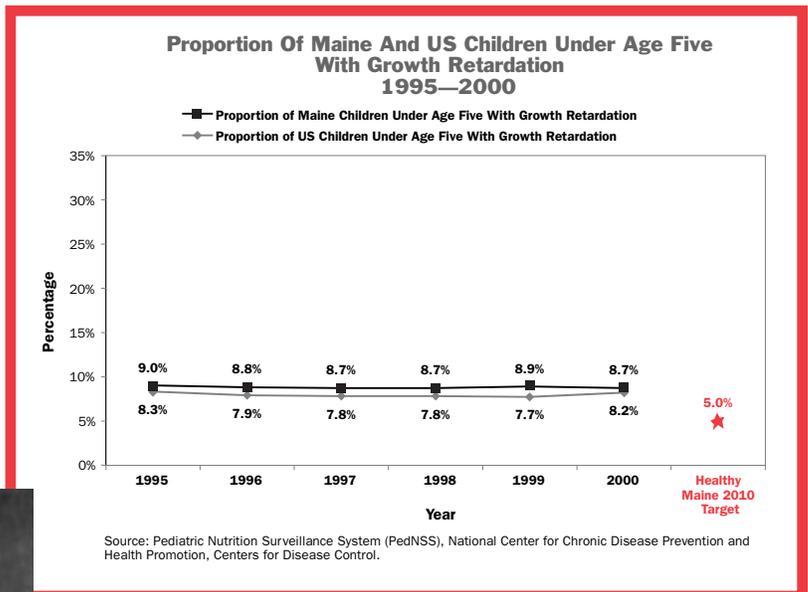
(National Center for Health Statistics, US, 2000, Table 69). Of children who are overweight, 61% have one or more cardiovascular disease risk factors, and 27% have two or more, indicating a strong linkage between the obesity epidemic and negative health consequences (Freedman, *Pediatrics*, 1999). Type 2 diabetes, a disease almost exclusively previously seen among adults and associated with obesity, is increasing among adolescents.

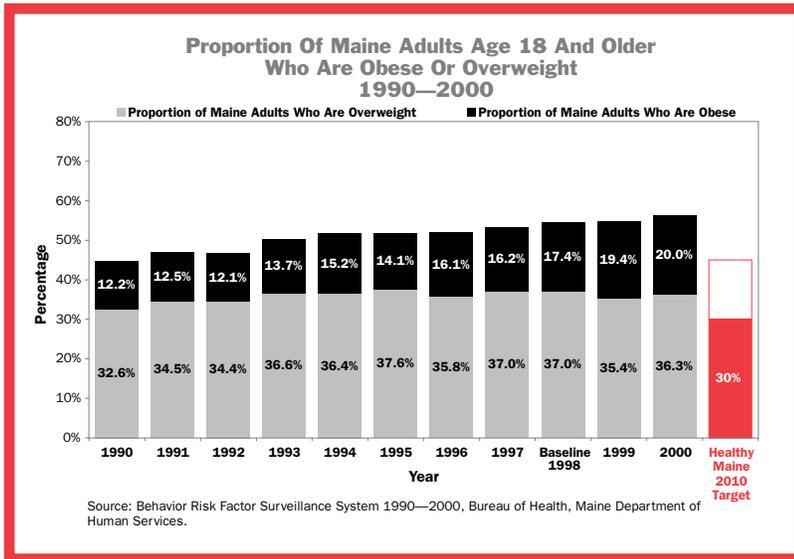


- **19-4 Reduce growth retardation among low-income children under age 5 years.**

Healthy Maine 2010 Baseline: 8.7%
 Healthy Maine 2010 Target: 5%

Growth retardation serves as an indicator of overall health and development and also may reflect the adequacy of a child’s diet. Low income and some racial and ethnic minority children are at highest risk for growth retardation.

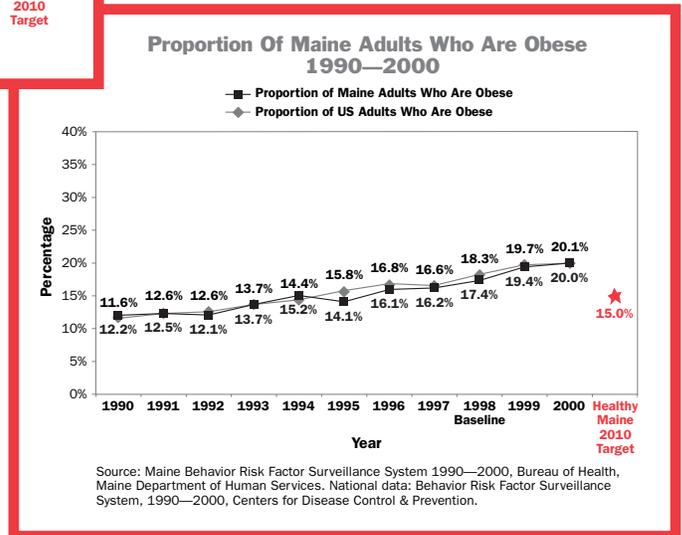




- **19-1, 19-2 Reduce the proportion of adults who are overweight or obese.**

Maine Obese Adults
Healthy Maine 2010 Baseline: 17%
Healthy Maine 2010 Target: 15%

Maine Overweight Adults
Healthy Maine 2010 Baseline: 37%
Healthy Maine 2010 Target: 30%



Maintenance of a healthy weight is a major goal in the effort to reduce the burden of illness and resulting reduction in quality of life and life expectancy. Body mass index (BMI), a calculation that factors one's weight along with height, is used to classify weight status. Only four decades ago, a major health concern in this country was undernutrition. Although this concern exists today, we now face an epidemic of overweight and obesity. Overweight and obesity lie on a continuum; obesity is generally considered a BMI of 30 or greater, which is generally at least 30 pounds overweight.

Commuting To Work

According to the US Census Bureau the most common ways we commuted to work in 1960 and 2000:

	US 1960	US 2000	Maine 2000
Car	64%	88%	89%
% of Car Drivers Who Drive Alone	Not Asked	76%	88%
Public Transportation	12%	5%	<1%
Walked	10%	3%	4%
Bicycle/ Other Means	Not Asked	1%	1%
Work at Home	7%	3%	5%

Body Mass Index (BMI):
Weight (in pounds) divided by the square of height (in inches) times 704.5. Also may be calculated by weight (in kilograms) divided by the square of height (in meters).

Overweight: BMI 25-29.9

Obese: BMI ≥30

The majority of people across Maine and the nation are overweight or obese. Over the past 20 years, obesity has increased by an astonishing 50% nationally.

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